

AUTOTRANSFORMER WITH FINE CONTROL OF THE OUTPUT VOLTAGE

DESTINATION

They are used in high power electrical installations requiring continuous change of the output voltage without distortions and uninterrupted switching of the current.

The product can be performed in single-phase or three-phase, dry or oil immersed transformer or autotransformer version.

DESCRIPTION AND OPERATION

Output voltage control is achieved by division of the flux linking a turn. Division of the flux linking a turn provides the suitable acquiring of some fraction from the voltage induced on turn.

$$\text{Tapping step} = \frac{U_{sp}}{n}$$

U_{sp} = voltage induced on turn

n = number of divisions of the flux linking a turn

Divisions of the flux linking a turn is achieved by means of a metallic grid crossing the magnetic circuit and it is galvanically connected with the collector sectors.

A movable equipment rotates round the collector supporting a brush system slipping on the collector and metallic contact head system rolling along the winding turns and providing the uninterrupted switching of the current.



TECHNICAL CHARACTERISTICS

- $S=70$ kVA
- $U_{imp}= 230$ V
- $U_{out} = 0 - 250$ V
- $I_{out} \leq 300$ A
- Tapping step: 0.2 V
- Distorsion of the load output voltage < 1 %
- It can be remote/local operated by means of a motor or manual by means of a wheel
- No load loss $P_0 < 250$ W
- Short-circuit loss $Kt < 500$ W
- Dimensions : 700 x 800 x 1450 [mm]
- Weight: 1250 kg (full with oil)

USE FIELDS

- Test laboratories
 - Supply of the electric circuit with variable controllable voltage on small steps without distortion and interrupted switching of the current
 - Establishing of some unsymmetrical three – phase regions
- High-power electrical drive